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EXAMINER

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Amendment, filed 5/01/08, has been entered. Claims 2-19 and 21-23 remain pending.

Claim Rejections - 35 USC § 103

1. Claims 2-19, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCloghrie (US 6,035,105) in view of Admitted Prior Art (Use of IPsec protocol in IP networks, Background of the invention, pages 1:14 –2:7).

2. Regarding claims 2, 5, 6, 9 and 10, McCloghrie substantially teaches the limitations of claims:

A packet communication apparatus, method and system to transmit a packet from a first network to a second network (LAN switch 103 and two networks 102 on Fig. 1 and 2:33-49, each network comprises appropriate VLAN), wherein the packet includes destination address (inherently part of any packet, because a destination address is essential for packet routing) and a Virtual Private Network/VPN identifier (each VLAN identifies each frame/packet with a VLAN identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first network comprising:

A packet generating unit/router which generates a second VPN identifier used to compose a second VPN in the second network based on the destination address and information in the first VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second header by changing tag 107 as shown on Fig. 2 and 3:49-67, changing the first VLAN identifier to a second VLAN identifier 1:59-63); and

A transmitter, which transmits a packet having thereto said second VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14 changing VLAN identifier 1:59-63) wherein the first VPN is interconnected to the plurality of VPNs in the second network (first VLAN 106, shown on an upper portion of Fig. 1, interconnected through LAN switch 103 to a second network 102, shown on the bottom portion of Fig. 1, comprising multiple VLANs with unique names, as shown on Fig. 3 and disclosed on 5:35-47).

McCloghrie teaches the networks as LANs utilizing the packets with MAC address (disclosed on 4:33-44).

McCloghrie does not teach implementing his method in IP environment, wherein the packets are IP packets, comprising IP address.

Admitted Prior Art teaches composing Virtual Private Networks in IP environment (using IPsec for identifying packets belonging to own company network to protect the VPN from the attacks of malicious users, Background 2:1-7, wherein IP packets inherently comprise IP addresses because IP addresses are essential for the IP network operation).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IPsec protocol, comprising IP packets with IP addresses of Admitted Prior Art to the system of McCloghrie to implement the method in widely used IP networks, like Internet.

In addition, regarding claim 6, McCloghrie teaches receiving the packet (3:7-14).

3. Regarding claims 3, 7 and 11, McCloghrie teaches replacing the first identifier with the second identifier (VLAN identifier replacement process 1:59-63).

4. Regarding claims 4, 8 and 12, McCloghrie teaches a route decision processing unit (LAN switch 103) which routes the packet to the second network according to the destination address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107 4:62-64) using IP address of Admitted Prior Art instead of MAC address, as shown above.

5. Regarding claims 13, 16, 17 and 21, McCloghrie substantially teaches the limitations of claims:

A packet communication apparatus, method and system to transmit a packet from a first network to a second network (LAN switch 103 and two networks 102 on Fig. 1 2:33-49, each network comprises appropriate VLAN), wherein the packet includes destination address (inherently part of any packet, because a destination address is essential for packet routing) and a first VPN identifier (each VLAN identifies each frame/packet with a VLAN identifier 1:50-65, shown on Fig. 1 and 2 as tag 107) used to compose first VPN in the first network comprising:

An index and packet generating unit/router which generates a second VPN identifier used to compose a second VPN network in the second network based on the index, as the index is based on the destination address and the first identifier (LAN switch 103 on Fig. 1 and 3:7-14 generating a second VLAN identifier by changing index/tag 107 as shown on Fig. 2 and 3:49-67, based on the index/tag in table 206 as shown on Fig. 2 and 5:2-33, according to the VLAN identifier replacement process 1:59-63); and

A transmitter which transmits a packet having thereto said second VPN identifier (LAN switch 103 on Fig. 1 and 3:7-14).

McCloghrie teaches networks as LANs utilizing the packets with MAC address (4:33-44).

McCloghrie does not teach networks implementing IP and the IP packets including IP address.

Admitted Prior Art teaches composing Virtual Private Networks in IP environment (using IPsec for identifying packets belonging to own company network to protect the VPN from the attacks of malicious users, Background 2:1-7, wherein IP packets inherently comprise IP addresses because IP addresses are essential for the operation of IP network).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IP networks and packets with IP address of Admitted Prior Art to the system of McCloghrie to implement the method in widely used IP networks.

6. Regarding claims 15, 19 and 23, McCloghrie teaches a route decision processing unit (LAN switch 103) which routes the packet to the second network according to destination address (MAC address 4:33-44) and information in the first header (VLAN identifier/tag 107 4:62-64) using IP address of Admitted Prior Art instead of MAC address, as shown above.

7. Regarding claims 14, 18 and 22, McCloghrie teaches replacing the index with a second VPN identifier (removing an identifier/tag of the first network with appropriate encapsulation/header and identifier for the second network 1:50-67 and 2:1-6).

Response to Arguments

1. Applicant's arguments with respect to claim 2-19 and 21-23 have been considered but are moot in view of the new ground(s) of rejection.

On pages 10 and 11 of the Response, Applicant argues that new limitations, directed to “the first VPN is interconnected to a plurality of VPNs in the second network” make the claims patentable. Examiner respectfully disagrees.

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McCloghrie clearly teaches using multiple VLANs/VPNs as indicated above in the rejection of the independent claims.

In addition, McCloghrie teaches LAN switch 103 using a table 206 for forwarding packets to multiple VLANs, wherein each row 207 is designated for a VLAN, as shown on Fig. 2 and disclosed on 5:4:63-5:20.

On pages 12 and 13 of the Response, Applicant argues that there is no suggestion to combine the references.

Examiner respectfully disagrees.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Applicant admits common knowledge of techniques of using IPsec protocol to make up a Virtual Private network.

In addition, Kent at Security Architecture for the Internet Protocol, RFC 2401, November 1998, teaches using IP headers for the protocol routines on page 9.

Therefore, implementing a known protocol techniques in the method of McCloghrie would have been obvious to one of ordinary skill in the art at the time the invention was made.

The Supreme Court opinion in KSR case (04-1350, U.S. Apr. 30, 2007), rejected the rigid application of the test, requiring “teaching, suggesting or motivation” in the prior art which would lead one of the ordinary skills in the art to combine the prior art teachings.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add using IP networks and packets with IP address of Admitted Prior Art to the system of McCloghrie to implement the method in widely used IP networks.

On pages 12 of the Response, Applicant argues that McCloghrie teaches using only VLAN technology and this fact teaches away from using IP technology.

Examiner respectfully disagrees.

Multiple protocols are known and used for network communications, therefore using one of them, like LAN, does not teaches away from using another network protocol, like IP.

Applicant arguments on pages 12-14, regarding difficulties of implementing teaching of McCloghrie in IP environment are irrelevant, because they are not directed to the claimed subject.

In addition, none of the claims comprise limitations, which are highlighted on page 14, and directed to “a header deciding unit”.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dmitry Levitan/
Primary Examiner, Art Unit 2616

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